

2
said ceramic layer [(1)] between said at least one additional metal surface [(5, 6)] and [one of] a remaining part of said ceramic layer [(1)] and forming said adjacent panels [(1', 1a, 1b, 1c)].

34B
1C
B
Cant X
2
2. (Twice amended) A multiple substrate according to claim 1, wherein said at least one predetermined breaking line [(3, 3a, 4) extends] extending between said at least two panels [(1', 1a, 1b, 1c)] reaches as far as to said at least one external predetermined breaking line [(3', 4')].

3. (Twice amended) A multiple substrate according to claim 1, wherein said predetermined breaking line [(3, 3a, 4a)] extends between said at least two panels [(1', 1a, 1b, 1c)] in one axial direction (y axis,) which lies in a plane of said ceramic layer [(1)], said one axial direction enclosing an angle with a second axial direction (x axis, y axis) likewise in said plane of said ceramic layer [(1)], in which said at least two panels adjoin one another.

C
2
CB
2
Claim 4 (Twice amended) A multiple substrate according to claim 1, wherein [the] said first and second axial directions (x axis, y axis) enclose an angle of 90° [with one another].

CB
2
Claim 5 (Twice amended) A multiple substrate according to claim 1, wherein [the] said first and second axial directions (x axis, y axis) enclose an angle of less than 90° [with one another].

B
2
B
2
Claim 6 (Twice amended) A multiple substrate according to claim 1, wherein said ceramic layer joins a plurality of said at least two panels [(1', 1a, 1b, 1c)] which are in at least two adjacent rows [(R1-R3)] on said ceramic layer [(1)], wherein each row has at least two panels [(1', 1a, 1b, 1c)] and adjoins an adjacent row, and wherein there are first predetermined break lines [(3, 4)] between said at least two panels [(1', 1a, 1b, 1c)] in rows (R1-R3) and also between panels (1', 1a, 1b, 1c) of

3
 said adjacent rows (R1-R3)] said first predetermined lines being all bridged by at least one first additional external metal surface [(5, 6)] of a first margin area and with second predetermined breaking lines being all bridged by at least one additional external metal surface of a second margin area.

3 Cont'd
 B
 Claim 7 (Twice amended) A multiple substrate according to claim [3] 6, wherein said [at least one border area (1'', 1''')] comprises at least two border areas which enclose an angle having at least two additional metal surfaces (5, 6) wherein one metal surface (5) is disposed on said first border area (1'') which bridges one of said at least one predetermined breaking lines (4) which extends] first predetermined breaking lines each extend in a first axial direction [(x axis) between panels (1', 1a, 1b, 1c) and where another metal surface (6) is disposed on a second border area (1''') which bridges another of said at least one predetermined breaking lines (3, 3a) which extends] (y axis) which lies in a plane of said ceramic layers wherein said second predetermined breaking lines each extend in a second axial direction [(y axis) between said panels (1', 1a, 1b, 1c) and wherein each border area (1'', 1''') is defined by an external predetermined breaking line (1', 4)] (x axis) in said plane of said ceramic layer, said first axial direction enclosing an angle with said second axial direction, said multiple substrate further comprising at least a first margin area and a second margin area which enclose an angle, with said at least one first margin area bridging said first predetermined breaking lines and said at least one second margin area bridging said second predetermined breaking lines.

4
 B
 C
 Claim 8 (Twice amended) A multiple substrate according to claim 7, wherein said external predetermined breaking line [(3')] of said at least one first margin area is [not] also bridged by said at least one [additional external metal surface (5, 6)] second margin area.

Claim 9 (Twice amended) A multiple substrate according to claim 1, wherein [at least two border areas (1'', 1''')] adjoin one another at a right angle] said first and second margin areas enclose an angle of 90°.

Claim 10 (Twice amended) A multiple substrate according to claim 7, wherein ~~one of~~ said at least one external predetermined breaking lines [(3')] defines said first border area [(1'')] and is not bridged by additional metal surfaces [(5', 6')], and wherein ~~said one additional metal layer~~ [(5)] on said first [border] margin area [(1'')] bridges said external predetermined breaking line [(4')] which defines second [border] margin area [(1''')].

Claim 11 (Twice amended) A multiple substrate according to claim 1, wherein said ceramic layer (1) forms four border areas (1'', 1''') which adjoin one another at an angle and wherein two of said four border areas] comprising four margins areas, with two first margin areas and two second margin areas being disposed opposite one another [are each first border areas (1'') or second border areas (1''')] on a periphery of said ceramic layer.

Claim 12 (Twice amended) A multiple substrate according to claim 1, wherein said ceramic layer [(1)] is scratched on at least one surface side or is provided with groove-shaped depressions to form predetermined breaking lines [(3, 4, 3', 4')].

Claim 13 (Twice amended) A multiple substrate according to claim 1, wherein ~~said at least one metal coating [is each a surface (2) which] of said at least one margin area is disposed with [border] margin lines parallel to said external~~ predetermined breaking lines [(3, 4, 3', 4')], and preferably has one of a rectangular and square metal shape (2)].

Claim 14¹³ (Twice amended) A multiple substrate according to claim 1, wherein said ~~at least two~~ panels [(1')] have, on both surfaces sides of said ceramic layer [(1)] at least one metal coating [(2)].

Claim 15 (Twice amended) A multiple substrate according to claim 1, wherein said [border] at least one margin area [(1'', 1''')] has a continuous additional metal surface [(5, 6)] which bridges all said at least one predetermined breaking lines [(3, 3a, 3', 4')] which extend perpendicularly to said [border] at least one margin area.

Claim 16 (Twice amended) A multiple substrate according to claim 1, wherein said [border] at least one border area [(1'', 1''')] has on both surface sides of said ceramic layer [(1)], an additional metal surface [(5, 6)].

Claim 17 (Twice amended) A multiple substrate according to claim 1, wherein said at least one metal coating [(2)] and said additional metal surface[s (5, 6)] of said at least one margin area are connected flat with said ceramic layer [(1)] by one of direct bonding [in] and an active brazing process.

Claim 25¹⁶ (Amended) A multiple substrate according to claim [24] ~~42~~ wherein said first and second axially directions enclose an angle of 90 degrees.

Claim 26 (Amended) a multiple substrate according to claim [24] ~~42~~, wherein said at least two panels are in at least two adjacent rows [(R1-R3)] on said ceramic layer in said first axially direction, said panels adjoin one another in a second axially direction wherein an additional metal surface is provided on at least two [border] margin areas perpendicular to one another, so that a metal surface on one [border] margin area bridges one of said at least two predetermined breaking lines running in said first axially direction, and another said at

least two metal surfaces is disposed on another of said at least two [border] margin areas to bridge one said two predetermined breaking lines running in a second axially direction, and

wherein a first one of said at least two border areas adjoined said at least two panels at one of said predetermined breaking lines running in said second axially direction, and a second one of said at least two [border] margin areas adjoined at least two panels on one of said at least two predetermined breaking lines in said first axially direction.

Claim 27 (Amended) A multiple substrate according to claim 26, wherein one said at least two predetermined breaking lines is not bridged by said additional metal surfaces [(5, 6)].

Claim 31 (Amended) A multiple substrate according to claim [24] 42, wherein said ceramic layer has one of scratches and grooved-shaped depressions on at least [on] one surface side to form said predetermined breaking lines.

Claim 32 (Amended) A multiple substrate according to claim [24] 42, wherein said metal surfaces are coatings running parallel to said predetermined break lines, and are rectangular surfaces.

Claim 33 (Amended) A multiple substrate according to claim [24] 42, wherein on said at least two panels, on both sides of said ceramic layer, at least one metal surface is provided.

Claim 34 (Amended) A multiple substrate according to claim [24] 42, wherein said additional metal surface is provided on one of said at least two [border] margin areas which bridges said at least one predetermined breaking lines extending perpendicularly or transversely to said [border] margin area.

Claim 35 (Amended) A multiple substrate according to claim [24] 42, wherein on said at least one [border] margin area, on both surface sides of said ceramic layer, there is an additional metal surface.

*16 16B
16C 1
16D 1
16E 1*
Claim 36 (Amended) A multiple substrate according to claim [24] 42, wherein said at least one metal coating and said additional metal surface are connected flat with said ceramic layer by a direct bonding process.

*16B
16C 1
16D 1*
[Add the following new claim:]

-- Claim 42: A multiple substrate according to claim 1, wherein said at least one predetermined breaking line intersects at least one external predetermined breaking line.--

REMARKS

The present Amendment is submitted in response to the outstanding Office Action (paper #7) dated January 13, 1995, and is believed to fully responsive to the objections and rejections raised therein. In view of the foregoing amendments, and the comments which follow, favorable reconsideration is respectfully requested.

In paragraph 1 of the Office Action, the Examiner indicates that the reference number should be deleted. In response, the claims have been amended to eliminate any reference numbers.

In paragraph 2 of the Office Action, claims 1-17 and 24-36 were rejected under 35 U.S.C. § 102(b) as being anticipated by, or, in the alternative, under 35 U.S.C. § 103 as being obvious over Gyurk or Nasu et al. or Spadafora et al.

As discussed in the specification of the present application and indicated in Figure 1, the present patent application is directed to a multiple substrate forming at least two, and preferably, a plurality, of adjoining panels or single substrates on a ceramic layer. Each panel has at least one metal coating on at least one surface side of the ceramic layer, with the metal coatings of all panels being so structured by suitable known techniques, i.e. by masking and edging, that printed circuits, contact surfaces and so on are obtained from each metal coating.